



# CITY OF NEWPORT BEACH

## BUILDING DEPARTMENT

3300 NEWPORT BLVD.  
P.O.BOX 1768, NEWPORT BEACH, CA  
(949) 644-3275

### RESIDENTIAL PLAN CHECK CORRECTIONS

Project Description:

Project Address:

Plan Check No.:

Date Filed:

No. Stories:

Use:

Occupancy:

Const. Type:

Architect/Engineer:

Phone:

Owner:

Phone:

Submitted Valuation:

Checked by:

Phone: (949) 644-32

Permit Valuation:

☒  
☐

1<sup>st</sup> Check

☐

2<sup>nd</sup> Check

☐

3<sup>rd</sup> Check

4<sup>th</sup> Check\*

**\*NOTE: Do not resubmit after the 3<sup>rd</sup> plan check. Call the plan check engineer for an in-person recheck appointment.**

**WARNING: PLAN CHECK EXPIRES 180 DAYS AFTER SUBMITTAL.**

**THIS PLAN CHECK EXPIRES ON:**

**Approval of plans and specifications does not permit violation of any section of the Building Code or other City ordinances or State law.**

**This plan check is according to: 2007 CBC, 2007 CPC, 2007 CEC, 2008 T-24 Energy**

- Make all corrections listed below
- Resubmit originally checked plans and indicate the location of response on this sheet. **DO NOT** resubmit after the third check. Call plan check engineer and schedule in-person recheck.
- Return this sheet with corrected plans
- For checking status of plans: call **(949) 644-3288** during business hours, or may be verified 24 hours 7 days a week via the Internet at:  
[www.newportbeachca.gov/building/](http://www.newportbeachca.gov/building/) or interactive voice response at **(949) 644-3255**
- For clarifications on corrections, you may call the Plan Check Engineer or schedule an appointment.
- When new information is provided after plan check due to corrections or otherwise, additional plan review time may be necessary upon resubmittal. Review of new information may result in additional corrections.

**Advisement:** South Coast AQMD Rule 445 does not allow wood burning fire place to be installed in projects for which a building permit is issued on or after March 9, 2009. Additional information is available on AQMD web site at <http://www.aqmd.gov/rules/reg04/r445.pdf>

## **GENERAL**

1. APPROVAL IS REQUIRED FROM:
  - a. Fire Department for construction within special fire hazard area.
  - b. Building Department
  - c. Planning Department
  - d. Public Works Department
  - e. Harbor Resources
  - f. Traffic Engineering
2. Show job address, preparer's name and address and owner's name on plans.
3. Show complete and correct legal description on plans.
4. Provide project description on drawings cover sheet.
5. Provide with each set of plans:
  - a. Vicinity Map
  - b. Plot Plan
  - c. Floor Plan
  - d. Construction Section(s)
  - e. Foundation Plan/floor framing, roof framing
  - f. Elevations of new construction or additions
  - g. Grading/Drainage plan and details
  - h. Site Survey and location of corner monuments
  - i. Structural Details
  - j. Fire Sprinkler Drawings
6. Specify exact area of all structures on drawings cover sheet.
7. Valuation has been increased to \$, additional plan check fees due.
8. Provide an additional permit application for:
  - a. Patio cover
  - b. Masonry or concrete fences over 3'-0", wood fences over 6' high. Masonry fence or foundation that cross the property line requires neighbor agreement. Obtain agreement from the Building Department permit counter or off the Building Department web page under "Misc. Forms & Handouts: [www.city.newport-beach.ca.us/Building/build\\_forms2.htm](http://www.city.newport-beach.ca.us/Building/build_forms2.htm)
  - c. Pool/Spa
  - d. Retaining walls
  - e. Other

All permits will be issued together or separate plans and plan check review will be required.
9. Provide fully dimensioned plot plan to scale. Show lot size, street, alley, easements, parking spaces, division walls, all projections, and location of all buildings.
10. Distance from face of the foundation to property line to be zoning setback plus wall finish thickness (minimum).
11. Provide basement shoring design drawings and calculations, stamped and signed by a registered engineer.
12. Provide a section through the property line showing property line, shoring, retaining wall, and improvements on both sides of the property line.
13. A Cal-OSHA permit is required for excavations deeper than 5' and for shoring and underpinning. Contractor to provide a copy of OSHA permit.

14. Provide pedestrian protection adjacent to public way as follows:

TABLE 3306.1 PROTECTION OF PEDESTRIANS		
HEIGHT OF CONSTRUCTION	DISTANCE FROM CONSTRUCTION TO LOT LINE	TYPE OF PROTECTION REQUIRED
8 feet or less	Less than 5 feet	Construction railings
	5 feet or more	None
More than 8 feet	Less than 5 feet	Barrier and covered walkway
	5 feet or more, but not more than one-fourth the height of construction	Barrier and covered walkway
	5 feet or more, but between one-fourth and one-half the height of construction	Barrier
	5 feet or more, but exceeding one-half the height of construction	None

When required, fence barrier and walkway cover to be constructed per CBC 3306.5, 3306.6 and 3306.7.

15. Provide construction fencing for new construction and for addition plus remodel projects exceeding 75% of the area of proposed structure. Fence height to be between 72" and 84" high.
16. Scope of "existing construction to remain" on architectural drawings does not match structural drawings. Coordinate plans and resubmit for plan review.
17. Provide a legend for existing walls to remain, to be demolished and for new walls.
18. Final architectural drawings to be stamped, wet-signed and dated by the design architect. Signature stamps, photocopied or electronic signatures are not sufficient.
19. Plan preparer to sign and date his/her drawings if state license is not required.
20. Identify the "Design Professional in Responsible Charge" for the project. The registered design professional in responsible charge shall be responsible for reviewing and coordinating submittal documents prepared by others, including phased and deferred submittal items, for compatibility with the design of the building. NBMC 15.02.010; CBC Appendix Chapter 1, 106.3.4.
21. Show all floor elevations, natural and finish grade elevations.
22. Show street address on building elevation per NBMC 13.12.210.

### **LIGHT & VENTILATION**

23. Where openings below grade provide required natural ventilation, the outside horizontal clear space measure perpendicular to the opening shall be 1-1/2 times the depth of the opening measured from adjoining ground level to the bottom of the opening. CBC 1203.4.1.2
24. Exterior glazed openings of habitable rooms for natural light shall be minimum 8% of the room floor area. Artificial lighting may be used in lieu of natural lighting. CBC 1205.2
25. In order to consider any room as a portion of an adjoining room for natural lighting and ventilation, at least 1/2 of the common wall area shall be open and unobstructed and shall provide an opening of not less than 10% for lighting and 8% for ventilation of the floor area of the interior room or 25 sq.ft., whichever is greater. CBC 1205.2.1
26. Porch over required windows at must have a minimum clear height of 7 ft. with longer side at least 65% open and unobstructed. CBC 1205.2.2 EX 1
27. Openable ventilation area of habitable rooms must be 4% or more of the room floor area. CBC 1203.1
28. In lieu of exterior openings for habitable rooms, a mechanical ventilating system meeting the California Mechanical Code requirements may be provided. CBC 1203.1
29. Rooms containing bathtubs, showers, spas and similar fixtures shall be provided with an exhaust fan with a minimum capacity of 50 CFM. Ductless fans are unacceptable. CBC 1203.4.2.1, CMC T-4-4

## **EXTERIOR WALLS**

30. Exterior walls of dwellings, guesthouses, garages, carports and/or accessory structures closer than 5 ft. to the property line shall be 1-hour fire-resistance-rated construction. CBC Table 602
31. No openings shall be permitted in the exterior walls, including vents, of Group R-3 & Group U Occupancies where the exterior wall is 3 ft. or closer to the property line. CBC Table 704.8
32. Where the exterior wall of Group R3/U-Mixed occupancy structure is located > 3 ft. and  $\leq$  5 ft. to the property line, protection of openings is not required. The total area of protected and unprotected openings, including vents, is limited to 25% of the wall area on each floor not including garage wall. CBC Table 704.8(c), 406.1.2(1)
33. Where the exterior wall of Group U-occupancy structure is located > 3 ft. and  $\leq$  5 ft. to the property line, the total area of protected openings is limited to 15% of the wall area, including vents. Unprotected openings are not permitted. CBC Table 704.8
34. 30-in. parapet walls shall be provided at the following locations except where the structure is  $\leq$  1,000 sq.ft.
  - a. Group R3/U-Mixed occupancy structure where the exterior walls are 3 ft. or closer to the property line. CBC 704.11, Exception 6, and table 704.8 footnote (c), and CBC 406.1.2(1)
  - b. Group U-occupancy structure where the exterior walls are 5 ft. or closer to the property line. CBC 704.11 and table 602.4, footnote (f)
35. Projections, including eaves, are not permitted in Group R3/U @ 2 ft. or closer to the property line. Projections located > 2 ft. and  $\leq$  3 ft. to the property line shall be of at least 1-hour fire-resistance-rated construction or heavy timber. CBC 704.2, 704.2.3, Table 704.8, 406.1.2
36. Projections, including eaves, are not permitted in Group U (detached garage) @ 3.4 ft. or closer to the property line. Projections located > 3.4 ft. and  $\leq$  5 ft. to the property line shall be of at least 1-hour fire-resistance-rated construction. CBC 704.2, 704.2.3, Table 704.8
37. Exterior stairways with one open side serving as an element of a required means of egress are not permitted closer than 3 ft. to the property line. CBC 1023.3; Table 704.8  
Open side of exterior stair plus other openings on the secure exterior wall shall be limited per CBC Table 704.8, Exceptions c, g

## **MEANS OF EGRESS**

38. Exterior stair shall be a minimum 5' away from the property line.
39. In every bedroom and basement greater than 200 sq. ft. or containing habitable space, provide one openable escape window meeting all of the following: CBC 1026.1, 1026.2, 1026.2.1, 1026.3
  - a. A net clear opening area of not less than 5.7 sq. ft. (5.0 sq. ft. escape for grade – floor window).
  - b. Minimum clear opening height of 24 inches.
  - c. Minimum clear opening width of 20 inches.
  - d. Maximum sill height 44 inches from the floor.
  - e. Provide a well for escape window from basement.
  - f. Area of window well to be 9 sq. ft. minimum with 3' ft. minimum dimension.
  - g. Provide a ladder from window well if deeper than 44" per CBC 1026.5.2.
40. Provide a minimum of one exit doorway not less than 3 ft. wide and 6 ft. 8 inches in height, and with a minimum clear width of 32 inches. CBC 1008.1.1, 1018.2
41. Landing lengths shall be a minimum of 36 inches in the direction of travel. CBC 1008.1.5
42. A door may swing over a landing that is not more than 0.5 inches in height below the threshold. CBC 1008.1.6

43. Door may open on the top step of a flight of stairs or an exterior landing, provided the door does not swing over the top step or exterior landing and the landing is not more than 7.75 inches below the top of the threshold. CBC 1008.1.4 EX 2, EX3
44. Provide section and details of interior and exterior stairway showing:
- a. Maximum rise of 7.75 inches and minimum run (tread) of 10 inches. CBC 1009.3 EX 4
  - b. Provide a nosing between 0.75" and 1.25" on stairways with solid risers where tread depth is less than 11".
  - c. Minimum width of 36 inches. CBC 1009.1 EX 1
  - d. Minimum headroom of 6 ft. 8 inches. CBC 1009.2
  - e. Enclosed usable space under a stairway requires 0.5 inches gypsum board finish. CBC 1009.5.3
  - f. Provide a note on the plans, "All stairways shall have an illumination level on tread runs of not less than 1 foot candle (11 lux)." CBC 1205.4
45. Winder treads shall have a minimum tread depth of 10 inches at a point 12 inches from the narrow side, and a minimum tread depth of 6 inches at the narrow edge. CBC 1009.3
46. Spiral Stairways shall comply with the following requirements:
- a. Tread: 7.5", minimum at 12" from narrow edge; Rise: 9.5" maximum; Width: 26" minimum. CBC 1009.8
  - b. Provide spiral stairway column connections and footing details. CBC 106.4.3
47. Handrails shall satisfy the following:
- a. Provide a minimum of one continuous handrail on stairways with 4 or more risers and at all open sides. CBC 1009.10
  - b. Handrail height shall be 34 to 38 inches above the nosing of treads. CBC 1012.2
  - c. Openings between intermediate balusters on the open side of stairs shall preclude the passage of a 4-3/8 inches diameter sphere.
  - d. The triangular openings formed by the riser, tread and bottom rail shall preclude the passage of a 6 inch diameter sphere. CBC 1013.3 EX 1 and 5
  - e. Handrail with circular cross-sections shall have a diameter of 1.25 to 2 inches.
  - f. Handrails with other than circular cross-sections shall have a perimeter dimension of 4 to 6.25 inches with a maximum cross-section of 2.25 inches. CBC 1012.3
  - g. Handrail shall be continuous without interruption by newel post or other obstruction, except at the landing and volute, or turnout on lowest tread. Bracket or balusters attached to the bottom surface of a handrail may not project horizontally beyond edge of handrail. CBC 1012.4 EX 3
  - h. Clear space between handrail and wall shall be 1.5 inches minimum. CBC 1012.6
48. Guards shall meet the following:
- a. Provide guards where the open side is more than 30 inches above the floor or grade below. CBC 1013.1
  - b. Guard height shall be a minimum of 42 inches. CBC 1013.2
  - c. Openings between intermediate balusters shall preclude the passage of a 4 inch diameter sphere. CBC 1013.3
49. Provide connection details of guardrail and/or handrail adequate to support a concentrated load of 200 pounds applied at a right angle to the top rail.
50. Glass guardrails to be of safety glazing with continuous top rail. CBC 2407.1 and 2407.2

51. Means of egress must be continuous, uninterrupted and terminate in a public way or exit court leading to a public way. Minimum clear width of exit court shall be 36 inches. Projections into the clear width shall not to exceed 1 ½ inches each side. CBC 1002 & 1024.6, CBC 1024.5.1

## **CONSTRUCTION**

52. For duplexes and townhouses provide the following:
- a. Floors and walls separating dwelling units in the same building shall not be of less than one-hour fire-resistive construction. CBC 419.2., 419.3
  - b. Provide sound transmission ratings (STC) not less than STC 50.
  - c. Townhouses shall comply with Section 419.4
  - d. Show draft separation for attic areas between units in a duplex. CBC 717.4.2
53. Show the following dimensions for each:
- a. At least one room with a minimum net area of 120 sq.ft. CBC 1208.3
  - b. Habitable areas shall have a minimum net area of 70 sq.ft. CBC 1208.3
  - c. A kitchen shall have a minimum gross area of 50 sq.ft. CBC 1208.3 EX 1
  - d. Habitable spaces shall not be less than 7 ft. in any plan dimension. CBC 1208.1
  - e. Occupiable spaces, habitable spaces, and corridors shall have a ceiling height of no less than 7 ft. 6 inches. CBC 1208.2
  - f. Bathrooms, toilet rooms, kitchens, storage rooms, and laundry rooms shall have a ceiling height of no less than 7 ft. CBC 1208.2
  - g. Kitchen shall have a clear passageway of not less than 3 ft. CBC 1208.1
54. Tempered glazing shall be provided at the following hazardous locations: CBC 2406.3
- a. Swinging and sliding doors
  - b. When located within 60-inches of the floor surface in tubs, showers, saunas, or steam rooms
  - c. Within a 24 inch arc of either vertical edge of doors and within 60 inches of walking surface.
  - d. Where glazing area is >9 sq.ft., bottom edge <18 inches above floor and top edge >36 inches above floor.
  - e. Adjacent to stairways, landings and ramps within 36 inches horizontally of walking surface and 60 inches above walking surface
  - f. Adjacent to stairways within 60 inches horizontally of bottom tread of stairway and exposed surface is within 60 inches above nose of tread.
55. Where a window sill is located higher than 72" above adjacent grade or finished surface on the opposite side, the lowest part of the opening shall be 24" minimum above the room finish floor surface. CBC 1405.12.2
56. Dimension on the plans the 30 inches clear width for water closets and 24 inches clearance in front of water closet for bathroom. CPC 407.6
57. Wall covering of showers or tubs within showers shall be of cement plaster, tile, or approved equal, to a height of not less than 70 inches above drain inlet. Specify cement board or cement plaster backing for tile. CBC 1210.3
58. Net area of shower enclosure shall be not less than 1,024 sq. inch (7.1 sq.ft.) of floor area, and a minimum of 30 inches diameter circle. CPC 411.7
59. Show location of 20 inch x 30 inch attic access with 30 inches minimum headroom. CBC 1209.2
60. Show how dwelling is provided with comfort heating facilities capable of maintaining a room temperature of 68° F at 3 ft. above the floor. CBC 1204.1

61. Attic Vents shall meet the following requirements: CBC 1203.2
- Show ventilation type, size, and location.
  - The net free ventilating area shall not be less than 1/150 of the attic area.
  - 50% of the required ventilation area must be located at least 3 feet above eave or cornice vents with the balance provided by eave or cornice vents.
  - Openings shall have corrosion-resistant wire mesh or other approved material with 1/8 inch minimum and 1/4 inch maximum opening.
62. Underfloor vents shall meet the following requirements: CBC 1203.3
- Show ventilation type, size and location.
  - Openings shall be placed so as to provide cross ventilation of the underfloor space.
  - The net free ventilating area shall not be less than 1/150 of the crawl-space area.
  - Openings shall have corrosion-resistant wire mesh or other approved material with 1/8 inch minimum and 1/4 inch maximum opening.
63. Provide roofing specifications, including roof assembly class, and show roof pitch.
64. Provide 2% slope at flat roof and deck.
65. Provide roof drains and overflow. Overflow to be piped separately.
66. Attach a copy of the testing agency report to drawings for segmental retaining walls. Walls over 4' high, measured from bottom of foundation or retaining slopes require an "Alternate Material" approval. Submit an application and supporting documents for review.
67. Product listing/labeling.  
The following construction components/material are not included in the California Building Code. Specify the listing/labeling agency and listing number for:  
The following agencies' listings are accepted by the City of Newport Beach for the following products:
- | <u>Agency</u> | <u>Products</u>   |
|---------------|---|
| IAPMO         | Plumbing products   |
| ICC-ES        | Building construction products including fireplaces & skylights |
| Intertek, UL  | Manufactured fireplaces   |
| UL            | Electrical components   |
| NFRC          | Skylights and fenestrations                                     |
- Alternate: Apply for Alternate Materials or Method of Construction for products/material not in the California Building Code or listed by accepted agencies above. An application is available on the web at: <http://www.newportbeachca.gov/Modules/ShowDocument.aspx?documentid=6803>
68. Provide Class A roofing assembly for new and reconstructed structures (Wood roofing material is not permitted).
69. Roof addition or repair less than 10% of existing roof shall be of equal to or greater than the existing roof classification and not less than a Class C roof covering.
70. Roof additions or repairs exceeding 10% and less than 50% of existing roof area shall be not less than the existing roofing Class, or Class B (or better) roof covering. (Class A within Special Fire Protection Area).
71. Reroofing, repair or addition exceeding 50% of existing roof area, entire roof shall be not less than the existing roofing Class, or Class B or better roof covering (Class A within Special Fire Protection Area).
72. Provide fire blocks and draft stops.
73. Exterior Lath and Plaster: Provide two layers of Grade D paper over all wood base sheathing. CBC 2510.6.

- 74. Provide approved moisture barrier behind retaining walls and under slabs below adjacent grade elevation. Specify all components. Waterproofing material to be durable and protected from damage.
- 75. Provide drains behind retaining walls to relieve hydrostatic pressure; show and indicate termination.
- 76. Provide smoke detectors in each hallway leading to sleeping rooms in each sleeping room of new or existing construction, on top of stairway, and at each story. In new construction detectors to be hard wired with battery back up. CBC 907.2.10.1.2 Detectors shall be interconnected to sound at the same time.
- 77. Detectors are not to be located in kitchen, garage, or within 3 feet from door to kitchen or bathroom or supply air registers.

#### **GARAGE AND CARPORT**

- 78. The following is required for the separation of the private garage from the dwelling unit:
  - a. Garages beneath habitable rooms shall be separated by no less than 5/8 inches type X gypsum board. Provide minimum 1/2 inch gypsum board on the garage side elsewhere. CBC 406.1.4 #1
  - b. Doors to the dwelling unit shall be solid wood or solid or honeycomb core steel and not less than 1-1/3 inches thick, or 20-minute rated. Doors shall be self-closing and self-latching. CBC 406.1.4 #1
  - c. Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. CBC 406.1.4 #1
  - d. Private garage/carport floor surfaces shall be of concrete or similar noncombustible and nonabsorbent material. The automobile parking floor area shall be sloped to facilitate the movement of liquids to a drain or toward the main vehicle entry doorway. CBC 406.1.3
  - e. Floors in garage/carport shall be designed to support a uniformly distributed load of 40-psf or concentrated live loads of 3,000-lbs acting on an area of 4.5 inches by 4.5 inches. CBC T-1607.1

#### **VENEER / FIREPLACE**

- 79. Specify and detail the veneer material, thickness, backing, anchorage, footings and support over openings. CBC 1405
- 80. For the fireplace/chimney specify the following:
  - a. Chimney shall extend at least 2 ft. higher than any portion of the building within 10 ft., but shall not be less than 3 ft. above the highest point where the chimney passes through the roof. CBC 2113.9
  - b. Provide a spark arrestor to meet all the requirements per Section 2113.9.1
  - c. Masonry or concrete chimneys shall be constructed, anchored, supported, and reinforced as required per Section 2113.3, 2113.4
  - d. Provide 2 inch clearance to framing around fire box and chimney or thickness from lining to combustibles to be 12 inches. CBC 2113.19
  - e. Note on the plans: "Exterior combustion air ducts shall be listed components of the fireplace, and installed according to the fireplace manufacturer's instructions." CBC 2111.13.1
- 81. Provide hearth dimensions on plan. Hearth thickness to be 2 inches minimum. (3/8 inches thick if fire box is 8 inches high, minimum). CBC 2111.10
- 82. Provide clearance to combustibles at fireplace opening per CBC 2111.11 EX 4
- 83. Provide a note that, "Factory-built fireplaces, chimneys, and all other components shall be listed and installed in accordance with their listing and manufacturer instructions."



84. Provide a note with factory-built fireplace information, "Decorative shrouds shall not be installed at the termination of factory-built chimneys except where such shrouds are listed and labeled for use with the specific factory-built chimney system and are installed in accordance with manufacturer's installation instructions." CMC (802.4.2.4)
85. Provide a transition detail for chimney, from masonry to wood.

## **STRUCTURAL**

### **GENERAL**

86. Provide specifications for the following materials on the plans:
- a. Sawn lumber. Specify grade and species. All lumber is required to be grade marked.
  - b. Structural composite lumber. Specify manufacturer, type, E, Fb and Fv. Include reference to listing agency report number.
  - c. Prefabricated wood I-joists. Specify manufacturer and type. Include reference to listing agency report number.
  - d. Glued-laminated beams. Specify 24F-V4 for simple spans and 24F-V8 for cantilevered spans.
  - e. Plywood. Specify panel grade, panel span rating and manufacture per PS 1-95. All plywood panels are required to be grade-marked.
  - f. Wood-based structural-use panels. Specify panel grade, panel span rating, and manufacture per PS 1-92. All panels are required to be grade-marked.
  - g. Concrete. Specify cement type, f'c and minimum 5 sacks cement per cubic yard.
  - h. Masonry. Specify type, f'm, brick/block grade, grout f'c and mortar type.
  - i. Reinforcing steel. Specify ASTM designation, grade and fy.
  - j. Structural steel. Specify ASTM designation, grade and fy. Specify certified fabricator. Specify welding by licensed welders.
87. Submit structural design/analysis calculations complying with following minimum presentation requirements:
- a. Number all pages
  - b. Include index
  - c. Include key plans referenced to calculations for design of gravity and lateral systems.
88. Provide structural calculations for:
89. Submit soils report (addition plus reconstruction on grade >1,000 sq.ft.)
90. Write the following notes on drawings if (400 sq.ft. <addition<1,000 sq.ft.):  
Soils engineer to inspect and certify the following prior to pouring concrete:
- a. Footing excavation and design bearing pressure.
  - b. All grading and compaction of subgrade.
91. Provide reference to soils report on the plans. Specify consultant name, address, report date, etc.
92. List soils allowable design values on foundation plan.
93. Provide a vapor barrier below slab on grade.
94. Soils engineer to review and approve foundation and grading plan for complex new projects and additions on sloping sites or with excavation.

95. Final structural drawings and calculations to be stamped, wet-signed and dated with signing date by the design engineer. Signature stamp, photocopied or electronic signatures are not sufficient. (This correction will be revisited at plan approval.)
96. Provide statement of special inspections per Section 1704.1.1 (including deletions and amendments to Chapter 15.04 of the Newport Beach Municipal Code in Sections 15.04.350 and 15.04.360). Statement is required to be permanently recorded on plans.
97. Provide structural observations per Section 1709 (including amendments to Chapter 15.04 of the Newport Beach Municipal Code in Sections 15.04.370 and 15.04.380).

## **FRAMING**

98. Continuous beams, girders, doubled joists, walls or other bearing partitions are required under parallel bearing partitions. CBC 2308.8.4
99. Studs supporting two floors, ceiling, and roof must be 3 x 4 or 2 x 6 at 16 inches on center. CBC Table 2308.9.1
100. Posts supporting concentrated loads, and which transfer forces to members below are required to be identified on framing plans and foundation plan. Provide all applicable details and references to them.
101. Posts or columns supporting permanent structures and supported by a concrete or masonry slab or footing that is in direct contact with the earth shall be of naturally durable or preservative-treated wood. CBC 2304.11.2.7
102. Provide straps at top plate to tie new walls to existing walls.

## **LATERAL**

103. Plywood shear walls shall comply with CBC Table 2306.4.1. Provide shear wall schedule with following specifications:
  - a. Minimum 3x nominal framing at panel edges and staggered edge nailing where nails are spaced 2 inches on center or closer (footnote e.)
  - b. Minimum 3x nominal framing at panel edges and staggered edge nailing where 10d nails with more than 1 ½ inches penetration into framing are spaced 3 inches on center or closer (footnote f.)
  - c. Where plywood panels are applied on both sides of wall and nail spacing is less than 6 inches on center, panel joints shall be offset to fall on different framing members, or framing shall be minimum 3x nominal at adjoining panel edges and edge nailing on each side shall be staggered (footnote h.)
  - d. For shear walls with maximum shear design value greater than 350 plf, provide minimum 3x nominal framing at adjoining panel edges, or (2) 2x nominal members fastened to transfer design shear value between framing members. Plywood panel edge nailing shall be staggered in both cases (footnote i.)
  - e. For shear walls with maximum shear design value greater than 350 plf, provide minimum 3x nominal sill plate with staggered panel edge nailing. Specify 2-20d box nails in lieu of 2-16d common nails for stud end nails per CBC Table 2304.1 (footnote i., 2305.3.11).
  - f. Record maximum shear design value for each shear wall type (footnote i.)
  - g. Nails shall be common or galvanized box (hot-dipped or tumbled) (footnote j.)
  - h. Anchor bolts shall include steel plate washers, a minimum of 0.229" x 3" x 3" in size, between sill plate and nut (2305.3.11)
104. Perform lateral design/analysis for structure in accordance with CBC Sections 1609 (Wind loads) and 1613 (Earthquake loads).
105. Calculate redundancy factors (ASCE 7-05 Section 12.3.4)
106. Determine mapped MCE spectral response acceleration parameters at short periods  $S_s$  = and at a one second period  $S_1$  = in accordance with ASCE 7-05 Section 11.4.1.

107. Walls braced to resist wind and seismic forces shall not exceed height to width ratios of 3½:1 and 2:1 respectively for wood structural panels; and 1½:1 for gypsum wallboard and Portland cement plaster (stucco). CBC 2305.3.4, CBC Table 2305.3.4
108. For shear walls with openings design the force transfer around the openings per Section 2305.3.8.1
109. Provide details showing transfer of shear wall holdown forces to foundation for shear walls above first floor.
110. Holdowns are required for all shear walls with net uplift forces. Use 0.9 DL for earthquake and 0.67 DL for wind for calculation of forces resisting shear wall overturning.
111. Provide grade beam design for continuous footings supporting lateral force resisting elements.
112. Design structural elements for support of discontinuous lateral force resisting elements in accordance with ASCE 7-05 Section 12.3.3.3. Reactions at ends of structural elements are required to be transferred to foundation, or until there are no net reactions. Provide details of all connections.
113. Provide details showing transfer of shear forces between:
  - a. Horizontal diaphragms and lateral force resisting elements and drag/struts
  - b. Bases of lateral force resisting elements and horizontal diaphragms
  - c. Bases of lateral force resisting elements and foundations.
114. Provide design/analysis of horizontal diaphragms, chords and chord splices.
115. Provide design of drag/struts and drag/strut connections. Include calculations for required diaphragm nailing at drag/struts (2 rows diaphragm BN will be required if diaphragms on each side of drag/strut are loaded to capacity).
116. Identify drag/struts on plans and specify drag/strut nailing.

## **FOUNDATION**

117. New construction or reconstruction of more than 75% of the first floor envelop located within an area prone to liquefaction shall mitigate liquefaction by using one of the following methods:
  - a.
    - i. Tie all pad footings with grade beams.
    - ii. Bottom of all footings to be 24 inch below grade
    - iii. Continuous footings to have a minimum of 2 #5 steel bars at top and bottom.
    - iv. Floor slab on grade to be 5 inch thick (minimum) reinforced with #4 bars at 12 inch on center each way located at the center of the slab.
    - v. Dowel footing to slab with #4 bars at 24 inch on center.
  - b.
    - i. Mix the top five feet of sand with cement at the ratio of two sacks of cement per cubic yard and recompact in place.
    - ii. Tie all pad footings with grade beams.
  - c. 12 inch thick structural mat foundation.
  - d. Post-tension slab and foundation.
  - e. Caissons or pile foundation. Driven piles should not be used since vibrations from pile driving will result in consolidation and damages to adjacent structures.
  - f. Replace soils to a depth of five feet with imported soils approved by a soils engineer.
  - g. Foundation design per soils engineer recommendation, which is equal to or exceeds mitigation methods listed above.
118. Provide details showing how new footings and slab will be connected to existing foundation elements.
119. Provide minimum of 1-#4 reinforcing bar at top and bottom of continuous footings.

- 120. Wood framing members, including wood sheathing, that rest on exterior foundation walls and are less than 8 inches from exposed earth shall be of naturally durable or preservative-treated wood. CBC 2304.11.2.2
- 121. Provide details for stepped footings when slope of bottom of footing exceeds 1:10. CBC 1805.1
- 122. Call out foundation bolt size and spacing on foundation plan. The foundation bolts shall be ½ inch diameter for SDC D and 5/8 inch diameter for SDC E or F with 0.229 inch x 3 inch x 3 inch plate washers, embedded at least 7 inches into the concrete or masonry foundation, spaced not more than 6 ft. apart. CBC 2308.6, 2308.12.9, 2305.3.11
- 123. Show minimum 18 inch underfloor clearance from grade to bottom of floor joists and minimum 12 inch clearance to bottom of girders. CBC 2304.11.2.1
- 124. Provide a weep screed for stucco at the foundation plate line a minimum of 4 inches above the earth or 2 inches above paved areas. CBC 2512.1.2

### **MECHANICAL, PLUMBING & ELECTRICAL (NEC 2007) (CMC 2007) (CPC 2007)**

- 125. Provide heating facilities per CBC 1204.1.
- 126. Show location of FAU.
- 127. Show water heater combustion air, venting, location, drain pan and line per Chapter 5, CPC and Section 608.5.
- 128. Water heater burner to be at 18" above garage floor if located in garage. CPC 508.14.
- 129. Provide a 3" Ø steel pipe x 36" embedded in concrete slab for protection of water heater in garage. CPC 508.14.
- 130. Specify that water heater to be strapped at top and bottom with 1 ½" x 16 gage strap with 3/8" dia. X 3" lag bolt each end. CPC 508.2
- 131. Show location of clothes dryer.
- 132. Length of lint vent not to exceed of 14 feet. CMC 504.3.2.
- 133. Specify low flush toilets. 1.6 gallons/flush. HSC 17921.3(b).
- 134. Electrical panel schedule and circuit drawings are required for service exceeding 400 Amp.
- 135. Provide electrical plans. Show all elements.
- 136. Provide G.F.C.I., per Article 210.8 2007 CEC: in bathroom, above kitchen countertop, crawl spaces, garage, rooftops, outdoor outlets, within 6' of wetbar sink/laundry sink.
- 137. Electrical outlets lighting and smoke detectors in bedroom are to be on ARC\_fault circuit interrupter.
- 138. Edison Company approval is required for meter location prior to installation (show note on plans).
- 139. Electrical service to be underground for new construction or additions >50% (Show note on plans). NBMC 15.32.015.
- 140. Field inspectors to review and approve underground service requirement prior to concrete placement (show note on plans).
- 141. Show means of grounding at service entry equipment per CEC 250.52 thru 250-68.
- 142. Show location of electrical panel on plans. Electrical panels are not permitted in closets, bathrooms, and pantries.
- 143. Keep three feet clear from face of electrical panel to any wall surface or obstruction.

### **ENERGY EFFICIENCY (2008 BUILDING ENERGY EFFICIENCY STANDARDS (BEES))**

#### **ADDITIONS (BEES 152(a))**

144. For Performance approach, see requirements for new construction.
145. Provide Certificate of Compliance (CF-1R ADD) forms on plans for additions  $\leq 1000$  ft<sup>2</sup>. CF-1R ADD form is to be wet-signed and dated by designer or owner, and documentation author.
146. Provide Certificate of Compliance (CF-1R) forms on plans for additions  $> 1000$  ft<sup>2</sup>. CF-1R form is to be wet-signed and dated by designer or owner, and documentation author.
147. For additions  $\leq 100$  sq. ft., maximum glazing area = 50 sq. ft.,  $U = 0.40$  max. and SHGC = 0.40 max (BEES 152(a)1.A.).
148. For additions  $\leq 1000$  sq. ft., maximum glazing area = 20% of floor area plus area of any removed glazing (BEES 152(a)1.B.).
149. Additions  $> 1000$  sq. ft. are to comply with requirements in Component Package D (Building Energy Efficiency Standards Table 151-C) (BEES 152(a)1.C.).
150. Provide Mandatory Features Form (MF-1R) on plans.

#### ALTERATIONS (BEES 152(B))

151. Provide Certificate of Compliance (CF-1R ALT) forms on plans. CF-1R ALT form is to be wet-signed and dated by designer or owner, and documentation author.
152. For Performance approach, comply with Mandatory Features and Devices requirements and following additional requirements (BEES 152(b)2.B.):
  - a. Combined R-value for existing and new ceiling insulation to be R-30.
  - b. Allowable glazing area = glazing area of existing building,  $U = 0.40$  max. and SHGC = 0.40 max.
  - c. HVAC duct insulation to be R-4.2.
  - d. Water heating systems energy budget to be per 2008 Building Energy Efficiency Standards Section 151(b)1.
153. For Prescriptive approach, comply with Mandatory Features and Devices requirements and following additional requirements (BEES 152(b)1.):
  - a. Where fenestrations are added, allowable total glazing area = 20% of floor area (percentage may exceed 20% if added glazing area  $\leq 50$  ft<sup>2</sup>),  $U = 0.40$  max. and SHGC = 0.40 max.
  - b. Where fenestrations are replaced,  $U = 0.40$  max. and SHGC = 0.40 max.
154. For roofing products weighing at least 5 psf on roofs with slopes greater than 2:12, where more than 50% of existing roof covering or 1000 ft<sup>2</sup>, whichever is less, is being replaced, roofing product with minimum aged solar reflectance = 0.15 and minimum thermal emittance = 0.75 is to be installed. In lieu of these minimums, a minimum SRI (Solar Reflectance Index) = 10 may be provided. Alternatively,
  - a. provide R-30 insulation in ceiling,
  - b. provide radiant barrier in attic with maximum emittance = 0.05, or
  - c. no HVAC ducts permitted in attic (BEES 152(b)1.H.ii.).

#### NEW CONSTRUCTION (BEES 151)

155. Specify method of compliance and provide energy calculations. List mandatory features (MF-1R) and provide Certificate of Compliance (CF-1R) forms on plans. CF-1R form is to be wet-signed by designer or owner, and documentation author.
156. For Performance approach, use one of the following certified programs:
  - Micropass 8.0
  - Energy Pro 5.0
  - CalRes 2008
157. Coordinate the following information with the architectural drawings:
  - a. conditioned floor area

- b. building front orientation
- 158. U-factor for wall to be per Joint Appendix JA4.
- 159. U-factor for roof/ceiling assembly to be per Joint Appendix JA4.
- 160. U-factor for floor assembly to be per Joint Appendix JA4.
- 161. Provide an itemized list of all fenestrations in calcs. Identify windows with method similar to window schedule.
- 162. Specify U-factors and SHGC values for all fenestrations on window and door schedules. Add note to schedules, "Fenestrations must have temporary and permanent labels."
- 163. Provide information regarding overhangs, fins and/or exterior shades used in calcs.
- 164. Itemize areas used in thermal mass calculations.
- 165. For Prescriptive approach, comply with requirements in Component Package D including requirements (BEES 151(f)):
  - a. HVAC ducts must be sealed and field verified by a HERS certified special inspector.
  - b. For roofing products weighing at least 5 psf, specify products with minimum aged solar reflectance = 0.15 and minimum thermal emittance = 0.75. In lieu of these minimums, a minimum SRI (Solar Reflectance Index) = 10 may be provided (BEES 152(f)12.A.ii.).

#### MANDATORY FEATURES AND DEVICES (BEES 150)

- 166. Provide and show R-13 rated insulation in walls, and R-19 in ceiling and raised floor.
- 167. Lighting integral with exhaust fans, in rooms other than kitchens, is to comply with lighting efficiency requirements per mandatory features list.
- 168. All permanently installed high efficiency luminaires shall be switched separately from low efficiency luminaires.
- 169. All exhaust fans shall be switched separately from lighting systems unless fan has integral lighting system with manual on/off switch which allows fan to operate independently of integral lighting system.
- 170. A minimum of 50% of kitchen lighting wattage is to be high efficiency and switched separately from any non high efficiency lighting. An additional 50 watts of low efficiency lighting for dwelling units  $\leq$  2500 sq.ft., and 100 watts for dwelling units  $>$  2500 sq.ft., may be installed when:
  - a. all low efficiency luminaires in kitchen are controlled by manual-on occupant sensor, dimmer, energy management control systems (EMCS), or multi-scene programmable control system; and
  - b. all permanently installed luminaires in garages, laundry rooms, closets  $>$  70 sq.ft., and utility rooms are high efficiency and are controlled by manual-on occupancy sensor.
- 171. Lighting in bathrooms, garage, laundry room, closets and utility room to be high efficiency, or equipped with manual-on occupant sensor (except closets  $<$  70 sq.ft.).
- 172. Lighting in all bedrooms, hall, living room, den and other similar rooms to be high efficiency or shall be controlled by manual-on occupant sensor or dimmer.
- 173. Exterior lighting mounted on building to be high efficiency. Low efficiency lighting may be provided if controlled by manual-on/off switch, motion sensor without override or bypass switch that disables motion sensor and:
  - a. photocontrol not having an override or bypass switch that disables photocontrol, or
  - b. astronomical time clock not having override or bypass switch that disables astronomical clock, or
  - c. energy management control system (EMCS) not having override or bypass switch that allows luminaires to be always on.
- 174. Implement lighting efficiency requirements on electrical drawings per mandatory features list.
- 175. For new construction and additions  $>$  1000 ft<sup>2</sup>, provide whole-building mechanical ventilation per ASHRAE Standard 62.2-2007 Section 4, with exception that natural ventilation through doors and windows is not an acceptable alternative to whole-building ventilation (BEES 152(a), Exception 5 to Section 152(a)). For continuous whole-building ventilation, minimum required rate of ventilation is 1 cfm for each 100 ft<sup>2</sup> of conditioned floor area plus 7.5 cfm for each occupant (1

- occupant per bedroom + 1). Ventilation to be provided by exhaust air, supply air or combined exhaust and supply air.
176. Provide in kitchens local exhaust system vented to outdoors with rate = 100 cfm (part of whole-building ventilation requirement).

## **SOUND TRANSMISSION CONTROL**

177. Provide construction details of the sound rated partition between.
178. A Sound Transmission Class (STC) rating of not less than 50 based on laboratory testing (45 if field tested) is required. CBC 1207.7
179. Provide construction details of the floor-ceiling assembly over. An STC rating and Impact Insulation Class (IIC) rating of not less than STC 50 based on laboratory testing (45 if field tested) is required. CBC 1207.8
180. Identify all sound rated partitions on the floor plans.
181. Doors to units from interior corridors are required to have a minimum STC rating of not less than 26. Solid core wood slab doors 1-23/8 inch thick or 18 gauge insulated steel slab doors with compression seals all around, may be used without testing reports. CBC 1207.7
182. Electrical outlet boxes in opposite faces of separation walls shall be separated horizontally by 24". Back and sides of boxes to be sealed with 1/8" resilient sealant and backed with 2" minimum mineral fiber insulation (TV, phone and intercom outlets must be installed in boxes accordingly.)
183. Wall-mounted lavatories and toilets are not permitted on sound-rated partitions.
184. Submit sound attenuation design for HVAC equipment per ARI Std. 275. Sound level not to exceed 50 dBA (55dBA with timer; 65 dBA with timer and neighbor's consent) per Section 10.26.045 of the NBMC. Location of measurement to be at adjacent property patio or opening. Locate equipment in equipment well on roof if necessary.
185. Add the following sound insulation notes on the drawings:
- a. Approved acoustical sealant shall be provided along the joint between the floor and the separation wall.
  - b. All penetrations into sound-rated partitions of floor-ceiling assemblies shall be sealed with approved permanent resilient sealant.
  - c. All rigid conduit, ducts, plumbing pipes and appliance vents located in sound assemblies shall be isolated from the building construction by means of resilient sleeves, mounts or minimum 1/4" thick approved resilient material.  
Exception: gas piping need not be isolated.
  - d. Metal ventilating and conditioned air ducts located in sound assemblies shall be lined.  
Exception: ducts serving only exit ways, kitchen cooking facilities and bathroom need not be lined.
  - e. Mineral fiber insulation shall be installed in joist spaces to a point 12" beyond the pipe or duct, whenever a plumbing pipe or duct penetrates a floor-ceiling assembly or where such unit passes through the plane of the floor-ceiling assembly within a wall

## **ADDITIONAL REGULATIONS**

186. Building area within exterior walls exceeds 5,000 sq.ft. exclusive of shafts and courts, provide fire sprinklers. According to the following: NBMC 15.04.190.
- a. Existing area <5000 sq.ft. (NBMC 15.04.200):

<u>Size of addition</u>	<u>Sprinkler required</u>
Add ≤25%	No
25% <add <50%	Addition only

- |                |                  |
|----------------|------------------|
| Add $\geq$ 50% | Entire Structure |
|----------------|------------------|
- b. Existing area >5000 sq.ft. (NBMC 15.04.200):
- |                         |                           |
|-------------------------|---------------------------|
| <u>Size of addition</u> | <u>Sprinkler required</u> |
| Add <1250               | No                        |
| 1250<add<2500           | Addition only             |
| Add >2500               | Entire Structure          |
- c. New construction >5,000 entire structure shall be sprinklered.
187. Sprinkler drawings and hydraulic calculations to be submitted to plan check and approved prior to issuing a building permit or provide a note on the drawing stating: "Obtain fire sprinkler permit prior to calling for roof sheathing inspection. Deferred submittal to be certified by project architect prior to submittal."
188. Provide separate utilities for each unit with potential for condo conversion.
189. All doors from house to pool yard must be equipped with alarm or provide an alternate drowning prevention safety feature per CBC 3109.4.4.2
190. List all deferred submittals on cover sheet and write a note, "Deferred submittals to be reviewed by project architect or engineer of record and certified prior to submittal for plan review.
191. In R-1 occupancy, comply with State regulations for disable access.

### **FLOOD HAZARD ZONE**

192. Building site is located in a special flood hazard zone. Top of slab or first floor over crawl space to be at or above elevation: MSL (NAVD 88). NGVD = NAVD – 2.4'.
193. A licensed surveyor shall complete FEMA elevation certificate and submit it to Building Department Inspector during final inspection. (Show note on plans.)
194. All mechanical and electrical equipment, including ducts to be above base flood elevation of msl. (NAVD 88).
195. Structural condition of seawall and tiebacks to be investigated by a registered engineer and the necessary repairs shall be done in conjunction with building a new structure. Separate submittal and permit is required for repair.  
Exception: Seawalls around Balboa Island.
196. Where top of garage floor slab is lower than the base flood elevation (BFE), garage walls are to be supported over concrete curb with top of curb  $\geq$  BFE.
197. Provide two openings in garage walls. Bottom of opening to be within 1 ft. from adjacent grade. Total area of openings to be 1/144 area of garage. Opening may be covered by louvers or mesh which permits entry and exit of flood water.

### **ADDITIONAL CORRECTIONS:**

- 198.